

**Notice of Allowability**

Application No.

09/682,324

Examiner

Kenneth R Coulter

Applicant(s)

STONE, BRADLEY A.

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ The drawings filed on 20 August 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 10/11/01
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_.

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### REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

The prior art of record does not specifically disclose or remotely suggest

With regard to independent claim 1:

A distributed monitor and control engine comprising:

an **SLO (service-level-objective) agent for adjusting resources** at a web site  
to **improve the measurements of the SLO objective**;

a **service agent**, coupled to the SLO agent, for **monitoring and controlling one or more tiers** at the web site;

**local agents**, running on nodes containing the service components, **each local agent for monitoring status of a service component and for adjusting local computing resources** available to the service component in response to commands from the service agent, each local agent reporting status to the service agent;

wherein the SLO agent uses the **service agent and local agents to adjust resources at the web site to improve measurements of the SLO objective**.

With regard to independent claim 10:

A computer-implemented method for monitoring and controlling a web site to meet a service-level objective (SLO) of a service having multiple tiers of service components, the method comprising:

a **local agent attempting to shift resources to the service component for the low-performing tier** from the lower-priority services running on a local node controlled by the local agent;

when the local agent is not able to shift resources, **replicating the service component to a target node** to increase a number of service components for the low-performing tier; and

sending an alarm signal from the service agent to the SLO agent to report an action taken, whereby availability and performance SLO violations are acted on by the **SLO agent instructing the service and local agents to shift resources or replicate service components of a tier causing the violation.**

With regard to independent claim 16:

A computer-program product comprising:

**first service agent means, coupled to a first local agent means**, for instructing the first local agent means to **adjust resources to increase performance of the first service components in response to a message from the SLO agent means signaling the SLO violation** when the SLO violation is caused by the first service components of the first tier means;

**second service agent means, coupled to a second local agent means**, for instructing the second local agent means to **adjust resources to increase performance of the second service components in response to a message from**

**the SLO agent means signaling the SLO violation when the SLO violation is**  
caused by the second service components of the second tier means; and

**third service agent means, coupled to a third local agent means, for**  
instructing the third local agent means to **adjust resources to increase performance**  
**of the third service components in response to a message from the SLO agent**  
**means signaling the SLO violation** when the SLO violation is caused by the third  
service components of the third tier means, whereby multiple tiers of service  
components are controlled.

2. A review of claims 1 - 20, in view of the Examiner's arguments above, indicates  
that claims 1 - 20 are allowable over the prior art of record.

3. Any comments considered necessary by applicant must be submitted no later  
than the payment of the issue fee and, to avoid processing delays, should preferably  
accompany the issue fee. Such submissions should be clearly labeled "Comments on  
Statement of Reasons for Allowance."

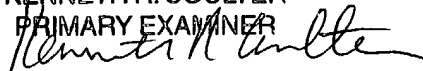
Any inquiry concerning this communication or earlier communications from the  
examiner should be directed to Kenneth R Coulter whose telephone number is 703 305-  
8447. The examiner can normally be reached on 5 4 9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
supervisor, Rupal Dharia can be reached on 703 305-4003. The fax phone number for  
the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KENNETH R. COULTER  
PRIMARY EXAMINER



krc

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